DVR
User Manual

User Manual for Stand alone DVR 4ch/8ch/16ch

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Chapter 1 Product Description

1.1 Product Overview

The equipment is a security surveillance product which is designed specifically for the security field, which adopts embedded processor and embedded operating systems, combined with latest technologies in the IT field, such as video and audio compression / decompression, high-capacity hard disk recording, TCP / IP network technology,and the codes are solidated in the FLASH, which makes system run more stable. The equipment at the same has the fearture of digital video and audio recorder (DVR) and digital video and audio server (DVS), which can not only independently locally, but also orm a powerful network of security monitoring through being connected to network. it can be used in banks, telecommunications, power, justice, transport, residence, factories, warehouses, water conservancy facilities and other fields and the safety precautions of each departments.

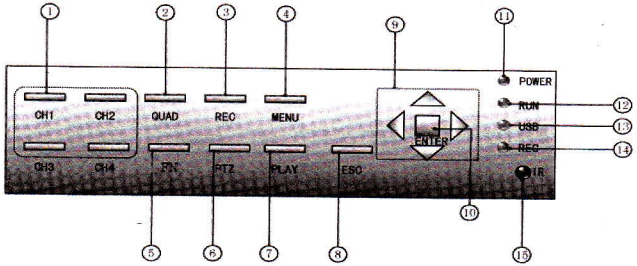
1.2 Technical parameters

* Model	DVR 4CH/8CH/16CH
* Operating System	Embedded Linux Operating System
* system resources	at the same time 4/8/16-channel CIF real-time video and network transmission, 1 or 4-channel CIF playback and 4/8/16-channel CIF / QCIF sub-stream
* Operation interface	Graphical operation interface,which supports mouse, panel, remote control
* Video Standard	PAL, NTSC
* video compression	H.264
* Audio Compression	ADPCM
* video modes	Manually, timing, alarm, motion detection
* Video query	timesearch, event search, channel search, log search
* Backup modes	network backup, USB backup, SATA DVD
* video input	4/8/16-channel BNC
* VGA output	1-way BNC, 1-way video output
* Audio Input	4/8/16-channel BNC
* Audio Output	1 channel BNC
* Monitor quality	PAL: 720x576 (D1); NTSC: 720x480 (D1)
* Playback quality	PAL: 352x288 (CIF); NTSC: 352x240 (CIF)
* Image Control	6-speed adjustable
* Motion Detection	the detection area of each channel (16 × 16), which can be set multi-level sensitivity
Screen display	1,4,8,9,16 screen display
* Video rate	PAL: 25 frames / sec (adjustable) NTSC: 30 frames / sec (adjustable)
* Backup	hard drive, network
• Local playback	1 or 4-way playback at the same time
* Alarm Input	4 switch input
* Alarm output	1 switch output
* PTZ control	RS485
* hard disk interface	2 SATA interface
* Network interface	RJ45 10M/100M self-adaptive Ethernet port
·USB interface	a USB2.0 high-speed interface; a USB1.1 interface
* Power	12V 3A-5A

chapter 2 intruction of product appearance struct

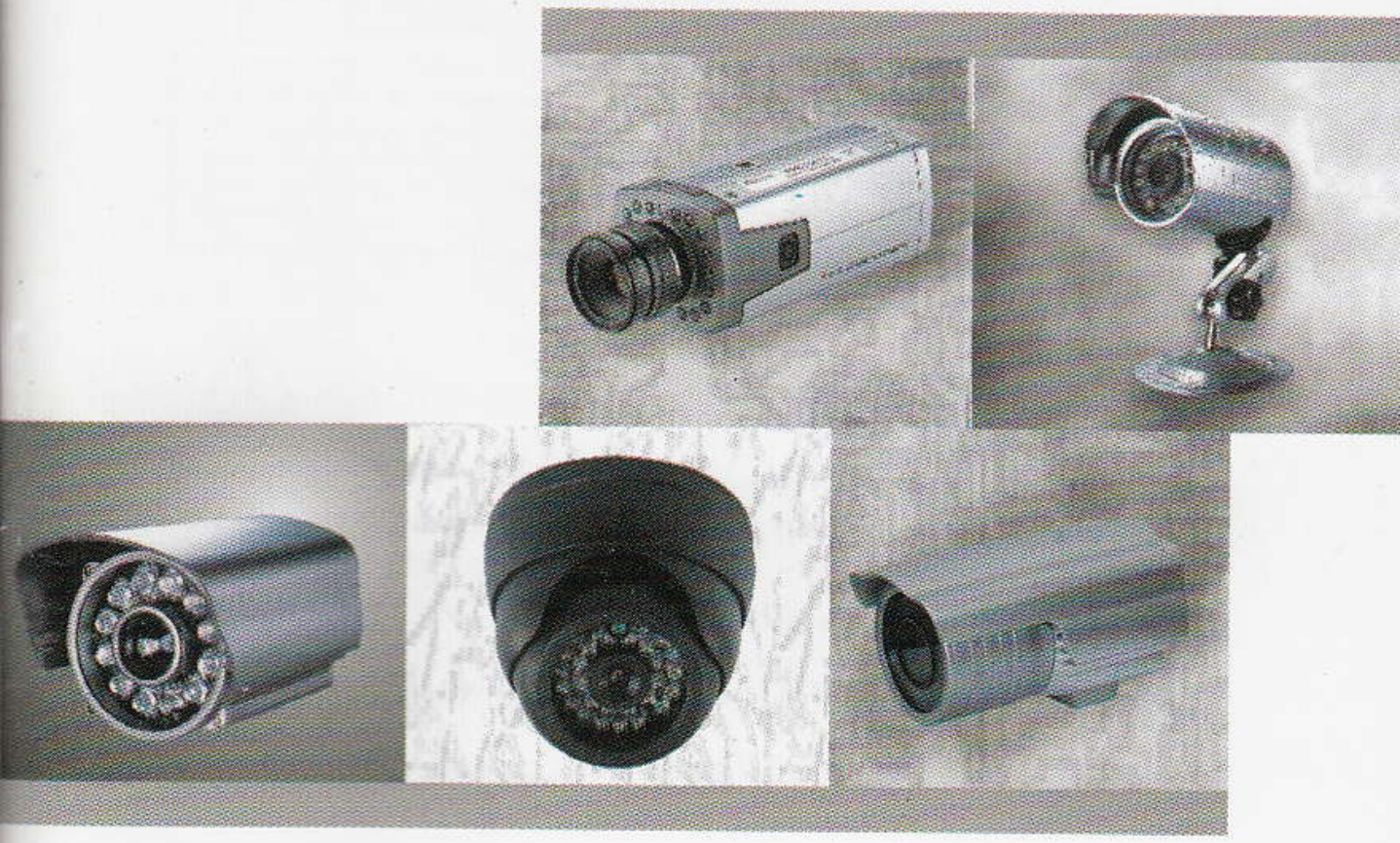
2.1 Panel Description

2. 1 DVR 4CH Panel Description



1. Single-channel shift button
2. 4 video loop preview button
3. Manual Recording button
4. Menu button
5. Auxiliary key
6. PTZ control button
7. Playback button
8. Exit button
9. Direction key
10. Confirm button
11. The power indicator
12. System running light
13. USB condition indicator
14. Recording condition indicator
15. Infrared receiver

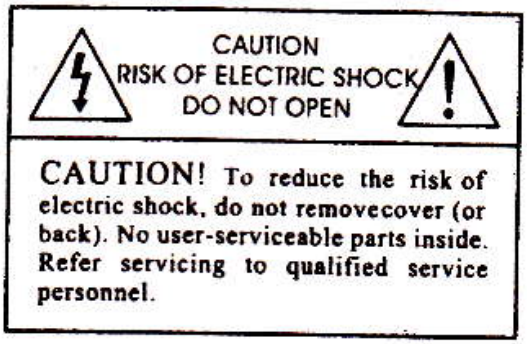
Standard and
IR Series Camera Instruction

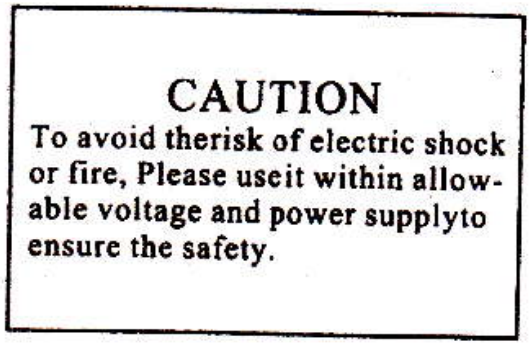


TÜV CERT ISO 9001:2000 CE FC

Safety and precautions

Safety and precautions arein order to preventany unexpected hurt or damage. Please read itcarefully to ensure usethe product correctly.





CAUTION!

1. Please use properadapter according to thespecification. It might cause fire, creepage, ordamage on the productwhen using any other unmatched one improperly.
2. One adapter isused for one cameraonly. Overworkmight cause fire or overheat.
3. The powerplug shall keep firmcontact with the socketto avoid fire incurred.
4. It shall befirmly fastened to theceiling or wall toavoid falling off.
5. Keep away fromoverdust or oversmoke areato avoid fire or creepage
6. Cut offthe power and contactthe service centre immediatelywhen a smell or smokeappears.
7. Contact the nearestdistributor or the servicecentre when mal function occurs. Don't openthe product by yourself;the manufacturer is not responsible forany unauthorized open orrepaire.

Safety and precautions

CAUTION!

1. Don't put heavygoods on / pressthe product. Avoid shaking, keep away from magneticfield.

2. It is dangerousto open the productby yourself. It mightcause creepage, or invalidity ofwater-proof function ofthe product.

3. It shall beinstalled at ventilated placewith temperature between -20℃--50℃.Don't place it intoextremely high or lowtemperature sealed surroundings.

4. Keep clean onthe surface of thedevice.

5. Avoid direct strong light.It might cause poorimage.

6. Keep away fromdirect sunlight, heat sourcesetc to avoid fire.

7. Pull out theplug when there isa thunder or lightening.It might cause fire or damageon the device.

Terminal, on-off description

(standard camera)

(As per Fig. 9, Fig. 10)
1-Video output connector (BNC)
2-Auto iris lens drive connector (as per Fig. 10), functions as follows:

Position	Video drive	DC drive
①	+12V	DAMP-
②	NC	DAMP+
③	VIDEO	DRIVE+
④	GND	DRIVE-

3-On-off switch
AWB - Auto white balance
ON-ATW (Auto tracking white balance mode)
OFF-Push (Speed-tracking)
When camera with mirror image function, then
AWB ON/ OFF => NOR MIR
NOR Standard image
MIR Image-right reverse

AGC - Auto Gain Control Switch
ON low AGC
OFF High AGC (used when in low illumination)
EE/AI Electronic Exposal / Auto Iris Lens Switch
EE - Electronic exposal（when connected to fixed lens or annual iris lens）
AI Auto iris function (when connected to auto iris lens)
BLC Backlight Compensation
ON Auto BLC
OFF - Strong BLC
4-Auto Iris Lens Drive switch
Turn to DC when connected to DC drive lens
Turn to VIDEO when connected to Video drive auto iris lens

Terminal, on-off description

(standard camera)

5 DC12V power input jack

6 Phase adjustment
When CCD camera collocate DV drive auto iris lens, the user can obtain a favorable image by adjusting this knob.
Power indicator.

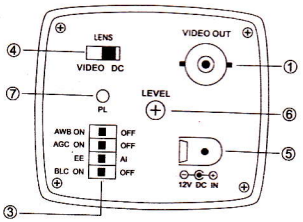


Fig.9 (standard camera) : Camera back panel

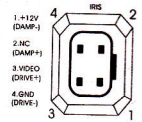


Fig.10: (standard camera) :Auto iris lens connector

Technical characteristics

(standard camera)

Model				
Pickup device	1/3-inch Sony Color CCD	1/3-inch Sharp Color CCD	1/4-inch Sony Color CCD	1/4-inch Sharp Color CCD
Number of Pixels	PAL: 512(H) X 582(V) NTSC: 512(H) X492(V)			
System of signal	PAL/NTSC			
Horizontal resolution	420 TV Line			
Minimum illumination	0Lux/F1.2 (IR open)			
S/N ratio	>48db			
Lens mount	C/CS			
AGC	ON/OFF(Optional)			
EE/AI	Auto electronic exposal/Auto iris lens(Optional)			
Backlight compensation	ON/OFF(Optional)			
White balance	ON/OFF(Optional)			
Electronic shutter	1/50(1/60)~1/100,000sec			
Video output	1.0Vp-p/75 ohm			
Power consumption	DC12V≦250mA AC24V≦180mA			
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa			

Technical characteristics

(standard camera)

Model				
Pickup device	1/3-inch Sony Color CCD			1/4-inch Sharp Color CCD
Number of Pixels	PAL:752(H)×582(V) NTSC:768(H)×492(V)		PAL:512(H)×582(V) NTSC:512(H)×492(V)	
System of signal	PAL/NTSC			
Horizontal resolution	520TV	480TV		420 TV Line
Minimum illumination	0.8Lux/F1.2			
S/N ratio	>48db			
Lens mount	C/CS			
AGC	ON/OFF(Optional)			
EE/AI	Auto electronic exposal/Auto iris lens(Optional)			
Backlight compensation	ON/OFF(Optional)			
White balance	ON/OFF(Optional)			
Electronic shutter	1/50(1/60)~1/100,000sec			
Video output	1.0Vp-p/75 ohm			
Power consumption	DC12V≦150mA AC24V≦100mA			
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa			

Problems and solutions

(Standard camera)

●Blurry image
This problem may becaused by the lens'improper connection with the cuprom ring. Please loosen lens-fixingscrew and readjust the cuprum ringposition till image becomesclear again. Then fixthe cuprum ring again.

●No image appears whenpower is on
①Please check whether thevoltage and the polarityare correct
②Please check whether thevideo joint and monitorare in good working conditions and theconnection is correct.

●Noise occurred in lowillumination
This is normal phenomenonarised from highAGC. The usercan turn on AGCfunction if he doesnot satisfy with it.

●Background incline to beblue
This maybe owning toAWBis on. It mustbe turned offnormally. Furthermore, it may beaffected by lightsource of the surrounding. Try to makethe lamphouse approach 3200k.

●Protean grounding
This phenomenon name huescroll, caused by theAC magnetic field of light effects on CCD image sensor.It can be settled down through out twosolutions:
1.Reduce daylight lamp,enlarge the distancebetween CCD camera and lamp.
2.Adopt line-lock mode.

●Auto iris lens cannot be opened
Please check whether theconnection of auto irislens is correct (see fig.10) If correct,for DC-drive auto irislens, adjust level Knob according to fig.9 Ⓑ; for Video-drive auto iris lens, adjust level Knob andALC Knob onthe lens.

Terminal and control wire description
(IR waterproof camera)

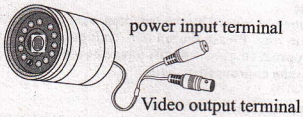


Fig.1 small size camera

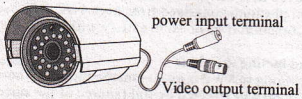


Fig2 large size camera

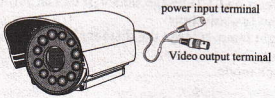


Fig.3 large size camera

(As per Fig.1, Fig.2,Fig.3 Power input terminal(in + out −)
Video output terminal

Terminal and control wire description
(IR waterproof camera)

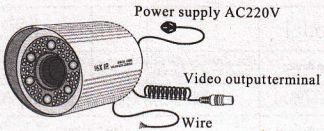


Fig.6---ZOOM camera

(As per Fig.6)
Video output terminal

Wire

Yellow	Purple	Gray	Brwon	Black	Rea
Focus	Zoom	COM	IRIS	GND	DC 12V

Technical characteristics

(IR wateproof camera)

Model						
Pickup device	1/3-inch Sony Color CCD	1/4-inch Sony Color CCD	1/3-inch Sony Color CCD	1/4-inch Sony Color CCD	1/4-inch Sharp Color CCD	1/3 LG Color CCD
Number of Pixels	PAL:512(H)×582(V) NTSC:512(H)×492(V)					
System of signal	PAL/NTSC					
Horizontal resolution	420 TV Line					
Minimum illumination	0Lux/F1.2 (IR open)					
S/N ratio	>48db					
Lens mount	8.5-51mm	6-60mm	Built-in 16mm(6/8/12mm Optional)			
AGC	Auto					
Backlight compensation	Auto					
White balance	Auto					
Electronic shutter	1/50(1/60)~1/100,000sec					
Video output	1.0Vp-p/75 ohm					
Power consumption	Ac220 65MA	DC12V ±10%,≤1200mA				
IR view distance	40-80m	20-50m	35-55m			
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa					

Technical characteristics

(IR wateproof camera)

Model				
Pickup device	1/3-inch Sony Color CCD			
Number of Pixels	PAL:752(H)×582(V) NTSC:768(H)×492(V)			PAL:512(H)×582(V) NTSC:512(H)×492(V)
System of signal	PAL/NTSC			
Horizontal resolution	520 TV Line	480 TV Line	450 TV Line	420 TV Line
Minimum illumination	0Lux/F1.2 (IR open)			
S/N ratio	>48db			
Lens mount	Built-in 25mm（Optional/可选）			
AGC	ON/OFF(Optional)			
Backlight compensation	ON/OFF(Optional)			
White balance	ON/OFF(Optional)			
Electronic shutter	1/50(1/60)~1/100,000sec			
Video output	1.0Vp-p/75 ohm			
Power consumption	DC12V±10%, ≤850mA			
Waterproof grade	Ip67			
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa			
IR view distance	40-80m			

Technical characteristics

(IR wateproof camera)

Model					
Pickup device	1/3-inch Sony Color CCD	1/3-inch Sharp Color CCD	1/4-inch Sony Color CCD	1/4-inch Sharp Color CCD	1/3 LG Color CCD
Number of Pixels	PAL:752(H)×582(V) NTSC:768(H)×492(V)	PAL:512(H)×582(V) NTSC:512(H)×492(V)			
System of signal	PAL/NTSC				
Horizontal resolution	420 TV Line				
Minimum illumination	0Lux/F1.2 (IR open)				
S/N ratio	>48db				
Lens mount	Built-in 4-9mm				
AGC	Auto				
Backlight compensation	Auto				
White balance	Auto				
Electronic shutter	1/50(1/60)~1/100,000sec				
Video output	1.0Vp-p/75 ohm				
Power consumption	DC12V ±10%,≤450mA				
Waterproof grade	Ip66				
IR view distance	15-35m				
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa				

Technical characteristics

(IR wateproof camera)

Model			
Pickup device	1/3-inch Sony Color CCD		
Number of Pixels	PAL:752(H)×582(V) NTSC:768(H)×492(V)		
System of signal	PAL/NTSC		
Horizontal resolution	520 TV Line	480 TV Line	450 TV Line
Minimum illumination	0Lux/F1.2 (IR open)		
S/N ratio	>48db		
Lens mount	Built-in 12mm(4/6/8/16mm Optional)		
AGC	Auto		
Backlight compensation	Auto		
White balance	Auto		
Electronic shutter	1/50(1/60)~1/100,000sec		
Video output	1.0Vp-p/75 ohm		
Power consumption	DC12V±10%, ≤600mA		
Waterproof grade	Ip66		
IR view distance	25-35m		
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa		

Technical characteristics

(IR wateproof camera)

Model				
Pickup device	1/3-inch Sony Color CCD	1/3-inch Sharp Color CCD	1/4-inch Sony Color CCD	1/4-inch Sharp Color CCD
Number of Pixels	PAL:752(H)×582(V) NTSC:768(H)×492(V)	PAL:512(H)×582(V) NTSC:512(H)×492(V)		
System of signal	PAL/NTSC			
Horizontal resolution	540 TV Line	420 TV Line		
Minimum illumination	0Lux/F1.2 (IR open)			
S/N ratio	>48db			
Lens mount	Built-in 12mm(4/6/8/16mm Optional)			
AGC	Auto			
Backlight compensation	Auto			
White balance	Auto			
Electronic shutter	1/50(1/60)~1/100,000sec			
Video output	1.0Vp-p/75 ohm			
Power consumption	DC12V ±10%,≤600mA			
Waterproof grade	Ip66			
IR view distance	25-35m			
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa			

Technical characteristics

(IR wateproof camera)

Model				
Pickup device	1/3-inch Sony Color CCD			1/4-inch Sony Color CCD
Number of Pixels	PAL:752(H)×582(V) NTSC:768(H)×492(V)		PAL:512(H)×582(V) NTSC:512(H)×492(V)	
System of signal	PAL/NTSC			
Horizontal resolution	540 TV Line	480 TV Line	420 TV Line	
Minimum illumination	0Lux/F1.2 (IR open)			
S/N ratio	>48db			
Lens mount	4~9mm/6~15mm Zoom Lens			
AGC	Auto			
Backlight compensation	Auto			
White balance	Auto			
Electronic shutter	1/50(1/60)~1/100,000sec			
Video output	1.0Vp-p/75 ohm			
Power consumption	DC12V ±10%,≤450mA			
Waterproof grade	Ip67			
IR view distance	15-25/25-35m			
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa			

Technical characteristics

(IR wateproof camera)

Model			
Pickup device	1/3-inch Sony Color CCD		
Number of Pixels	PAL:752(H)×582(V) NTSC:768(H)×492(V)		
System of signal	PAL/NTSC		
Horizontal resolution	540 TV Line	480 TV Line	450 TV Line
Minimum illumination	0Lux/F1.2 (IR open)		
S/N ratio	>48db		
Lens mount	Built-in 12mm(4/6/8/16mm Optional)		
AGC	Auto		
Backlight compensation	Auto		
White balance	Auto		
Electronic shutter	1/50(1/60)~1/100,000sec		
Video output	1.0Vp-p/75 ohm		
Power consumption	DC12V ±10%,≤580mA		
Waterproof grade	Ip66		
IR view distance	25-35m		
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa		

Technical characteristics

(IR wateproof camera)

Model					
Pickup device	1/3-inch Sony Color CCD	1/3-inch Sharp Color CCD	1/4-inch Sony Color CCD	1/4-inch Sharp Color CCD	1/3 LG Color CCD
Number of Pixels	PAL:512(H)×582(V) NTSC:512(H)×492(V)				
System of signal	PAL/NTSC				
Horizontal resolution	420 TV Line				
Minimum illumination	0Lux/F1.2 (IR open)				
S/N ratio	>48db				
Lens mount	Built-in 12mm(4/6/8/16mm Optional)				
AGC	Auto				
Backlight compensation	Auto				
White balance	Auto				
Electronic shutter	1/50(1/60)~1/100,000sec				
Video output	1.0Vp-p/75 ohm				
Power consumption	DC12V ±10%,≤580mA				
Waterproof grade	Ip66				
IR view distance	25-35m				
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa				

Technical characteristics

(IR wateproof camera)

Model					
Pickup device	1/3-inch Sony Color CCD	1/3-inch Sharp Color CCD	1/4-inch Sony Color CCD	1/4-inch Sharp Color CCD	1/3 LG Color CCD
Number of Pixels	PAL:512(H)×582(V) NTSC:512(H)×492(V)				
System of signal	PAL/NTSC				
Horizontal resolution	420 TV Line				
Minimum illumination	0Lux/F1.2 (IR open)				
S/N ratio	>48db				
Lens mount	Built-in 6mm(6/12mm Optional)				
AGC	Auto				
Backlight compensation	Auto				
White balance	Auto				
Electronic shutter	1/50(1/60)~1/100,000sec				
Video output	1.0Vp-p/75 ohm				
Power consumption	DC12V ±10%,≤300mA				
Waterproof grade	1p67				
Power consumption	10-15m				
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa				

Technical characteristics

(IR wateproof camera)

Model			
Pickup device	1/3-inch Sony Color CCD		
Number of Pixels	PAL:752(H)×582(V) NTSC:768(H)×492(V)		
System of signal	PAL/NTSC		
Horizontal resolution	540 TV Line	480 TV Line	450 TV Line
Minimum illumination	0Lux/F1.2 (IR open)		
S/N ratio	>48db		
Lens mount	Built-in 6mm(6/12mm Optional)		
AGC	Auto		
Backlight compensation	Auto		
White balance	Auto		
Electronic shutter	1/50(1/60)~1/100,000sec		
Video output	1.0Vp-p/75 ohm		
Power consumption	DC12V ±10%,≤400mA		
Waterproof grade	Ip66		
IR view distance	15-25m		
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa		

Technical characteristics

(IR wateproof camera)

Model					
Pickup device	1/3-inch Sony Color CCD	1/3-inch Sharp Color CCD	1/4-inch Sony Color CCD	1/4-inch Sharp Color CCD	1/3 LG Color CCD
Number of Pixels	PAL:512(H)×582(V) NTSC:512(H)×494(V)				
System of signal	PAL/NTSC				
Horizontal resolution	420 TV Line				
Minimum illumination	0Lux/F1.2 (IR open)				
S/N ratio	>48db				
Lens mount	Built-in 6mm(8/12mm Optional)				
AGC	Auto				
Backlight compensation	Auto				
White balance	Auto				
Electronic shutter	1/50(1/60)~1/100,000sec				
Video output	1.0Vp-p/75 ohm				
Power consumption	DC12V ±10%,≤400mA				
Waterproof grade	Ip67				
IR view distance	15-25m				
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa				

Technical characteristics

(IR wateproof camera)

Model					
Pickup device	1/3-inch Sony Color CCD	1/3-inch Sharp Color CCD	1/4-inch Sony Color CCD	1/4-inch Sharp Color CCD	1/3 LG Color CCD
Number of Pixels	PAL:512(H)×582(V) NTSC:512(H)×492(V)				
System of signal	PAL/NTSC				
Horizontal resolution	420 TV Line				
Minimum illumination	0Lux/F1.2 (IR open)				
S/N ratio	>48db				
Lens mount	Built-in 6mm (8/12mm Optional)			Built-in 3.6mm (6/8mm Optional)	
AGC	Auto				
Backlight compensation	Auto				
White balance	Auto				
Electronic shutter	1/50(1/60)~1/100,000sec				
Video output	1.0Vp-p/75 ohm				
Power consumption	DC12V ±10%,≤250mA				
Waterproof grade	Ip66				
IR view distance	15-25m				
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa				

Technical characteristics

(IR wateproof camera)

Model					
Pickup device	1/3-inch Sony Color CCD	1/3-inch Sharp Color CCD	1/4-inch Sony Color CCD	1/4-inch Sharp Color CCD	1/3 LG Color CCD
Number of Pixels	PAL:512(H)×582(V) NTSC:512(H)×492(V)				
System of signal	PAL/NTSC				
Horizontal resolution	420 TV Line				
Minimum illumination	0Lux/F1.2 (IR open)				
S/N ratio	>48db				
Lens mount	Built-in 6mm (6/8/12mm Optional)			Built-in 3.6mm (6/8/12mm Optional)	
AGC	Auto				
Backlight compensation	Auto				
White balance	Auto				
Electronic shutter	1/50(1/60)~1/100,000sec				
Video output	1.0Vp-p/75 ohm				
Power consumption	DC12V ±10%,≤250mA				
Waterproof grade	Ip66				
IR view distance	10-25m				
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa				

Technical characteristics

(IR waterproof camera)

Model			
Pickup device	1/3-inch Sony B/W CCD		1/3-inch LG B/W CCD
Number of Pixels	CCIR:512(H)×492(V) EIA:512(H)×582(V)		
System of signal	CCIR/EIA		
Horizontal resolution	600 TV Line	480 TV Line	420 TV Line
Minimum illumination	0Lux/F1.2 (IR open)		
S/N ratio	>48db		
Lens mount	Built-in 6mm(4/8/12mm Optional)		
AGC	Auto		
Backlight compensation	Auto		
Electronic shutter	1/50(1/60)~1/100,000sec		
Video output	1.0Vp-p/75 ohm		
IR view distance	DC12V±10%, ≤400mA		
Waterproof grade	Ip67		
Power consumption	15-25m		
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa		

Technical characteristics
(IR waterproof camera)

Model		
Pickup device	1/3-inch Sony B/W CCD	1/3-inch LG B/W CCD
Number of Pixels	CCIR:512(H)×492(V)	EIA:512(H)×582(V)
System of signal	CCIR/EIA	
Horizontal resolution	480 TV Line	420 TV Line
Minimum illumination	0Lux/F1.2 (IR open)	
S/N ratio	>48db	
Lens mount	Built-in 6mm(3.6/8/12mm Optional)	
AGC	Auto	
Backlight compensation	Auto	
Electronic shutter	1/50(1/60)~1/100,000sec	
Video output	1.0Vp-p/75 ohm	
Power consumption	DC12V±10%, ≤250mA	
Waterproof grade	Ip67	
IR view distance	10~15m	
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa	

Problem and solution (Dome camera)

Blurry image
This problem may be caused by lens' position shift. Please loosen lens-fixing screw and readjust the lens till image clear again. Then fix the lens.

No image appears when power is on
①Please check whether the voltage and the polarity are correct

②Please check whether the video joint and monitor are in good working conditions and the connection is correct.

Noise occurred in low illumination
This is normal phenomenon arised from high AGC. The user can turn on AGC function if he does not satisfy with it.

Problems and solutions

(IR waterproof camera)

Nu.	Problem	Reason	Solution
1	Pictures display good in daytime, but disturbed or blurry at night	①power not sufficient ②power supply line is too long	①Change a stable power supply ②Select a nearer power supply to reduce the loss of power transport
2	No image	Video joint line and monitor is in poor connection	Reconnect them properly
		power supply is not in good condition.	Change the power supply
		Power line fails to be connected	Reconnect the power line
3	Wire control doesn't work	The control wire may not be connected properly	Reconnect the control wire correctly
4	Noise occurred in low illumination	It's normal phenomenon arised from high AGC.	Can turn on AGC function if does not satisfy with it

Terminal and control wire description

(Dome Camera)

1···Power supply Terminal (inside +, outside-)
2···Video output Terminal(inserted by lotus flowe-shaped plug or BNC plug)
3···DC+12 down lead(red)
4···Earth line(black)
5···Dow lead fixed socket
6···Video singal line(yellow)
7···Dome cover
8···Lens
9···Infrared light panel
10---lens position adjust screw
11---Pedestal
12---Power line clasp

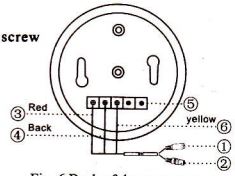


Fig .6 Back of dome camera

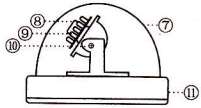


Fig.7 Structure of dome camera

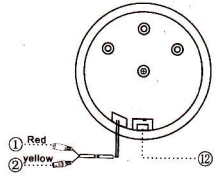


Fig.8 Back of dome camera

Technical characteristics

(IR wateproof camera)

Model					
Pickup device	1/3-inch Sony Color CCD			1/4-inch Sony Color CCD	1/3 LG Color CCD
Number of Pixels	PAL:752(H)×582(V) NTSC:768(H)×492(V)			PAL:512(H)×582(V) NTSC:582(H)×492(V)	
System of signal	PAL/NTSC				
Horizontal resolution	540 TV Line	480 TV Line	420 TV Line		
Minimum illumination	0Lux/F1.2 (IR open)				
S/N ratio	>48db				
Lens mount	3.5~8mm Zoom Camera				
AGC	Auto				
Backlight compensation	Auto				
White balance	Auto				
Electronic shutter	1/50(1/60)~1/100,000sec				
Video output	1.0Vp-p/75 ohm				
Power consumption	DC12V ±10%,≤450mA				
Waterproof grade	Ip67				
IR view distance	15-25				
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa				

Technical characteristics

(IR wateproof camera)

Model			
Pickup device	1/3-inch Sony Color CCD		
Number of Pixels	PAL:752(H)×582(V) NTSC:768(H)×492(V)		
System of signal	PAL/NTSC		
Horizontal resolution	540 TV Line	480 TV Line	450 TV Line
Minimum illumination	0Lux/F1.2 (IR open)		
S/N ratio	>48db		
Lens mount	Built-in 6(8/12)mm (Optional)		
AGC	Auto		
Backlight compensation	Auto		
White balance	Auto		
Electronic shutter	1/50(1/60)~1/100,000sec		
Video output	1.0Vp-p/75 ohm		
Power consumption	DC12V ±10%,≤250mA		
IR view distance	8~12m/R Case	15~20m/L Case	
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa		

Technical characteristics

(IR vandalproof camera)

Model					
Pickup device	1/3-inch Sony Color CCD	1/3-inch Sharp Color CCD	1/4-inch Sony Color CCD	1/4-inch Sharp Color CCD	1/3 LG Color CCD
Number of Pixels	PAL:512(H)×582(V) NTSC:512(H)×492(V)				
System of signal	PAL/NTSC				
Horizontal resolution	420 TV Line				
Minimum illumination	0Lux/F1.2 (IR open)				
S/N ratio	>48db				
Lens mount	Built-in 6(8/12)mm (Optional)				
AGC	Auto				
Backlight compensation	Auto				
White balance	Auto				
Electronic shutter	1/50(1/60)~1/100,000sec				
Video output	1.0Vp-p/75 ohm				
Power consumption	DC12V ±10%,≤250mA				
IR view distance	8~12m/R Case		15~20m/L Case		
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa				

Technical characteristics

(Dome camera)

Model						
Pickup device	1/3-inch Sony Color CCD		1/3-inch Sharp Color CCD	1/4-inch Sony Color CCD	1/4-inch Sharp Color CCD	1/3 LG Color CCD
Number of Pixels	PAL:512(H)×582(V) NTSC:512(H)×492(V)					
System of signal	PAL/NTSC					
Horizontal resolution	520 TV Line	420 TV Line				
Minimum illumination	0Lux/F1.2 (IR open)					
S/N ratio	>48db					
Lens mount	Built-in L-6mm R-3.6mm (6/8/12mm Optional)					
AGC	Auto					
Backlight compensation	Auto					
White balance	Auto					
Electronic shutter	1/50(1/60)~1/100,000sec					
Video output	1.0Vp-p/75 ohm					
Power consumption	DC12V ±10%,≤250mA					
IR view distance	6-10m					
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa					

Technical characteristics

(Dome camera)

Model						
Pickup device	1/3-inch Sony Color CCD		1/3-inch Sharp Color CCD	1/4-inch Sony Color CCD	1/4-inch Sharp Color CCD	1/3 LG Color CCD
Number of Pixels	PAL:512(H)×582(V) NTSC:512(H)×492(V)					
System of signal	PAL/NTSC					
Horizontal resolution	540 TV Line	420 TV Line				
Minimum illumination	0Lux/F1.2 (IR open)					
S/N ratio	>48db					
Lens mount	Built-in 6mm(6/8/12mm Optional)					
AGC	Auto					
Backlight compensation	Auto					
White balance	Auto					
Electronic shutter	1/50(1/60)~1/100,000sec					
Video output	1.0Vp-p/75 ohm					
Power consumption	DC12V ±10%,≤400mA					
IR view distance	10-15m					
Operation environment	Temperature: -20℃-50℃ Humidity: 40%-95% Air pressure: 86kpa-106kpa					